

(No Model.)

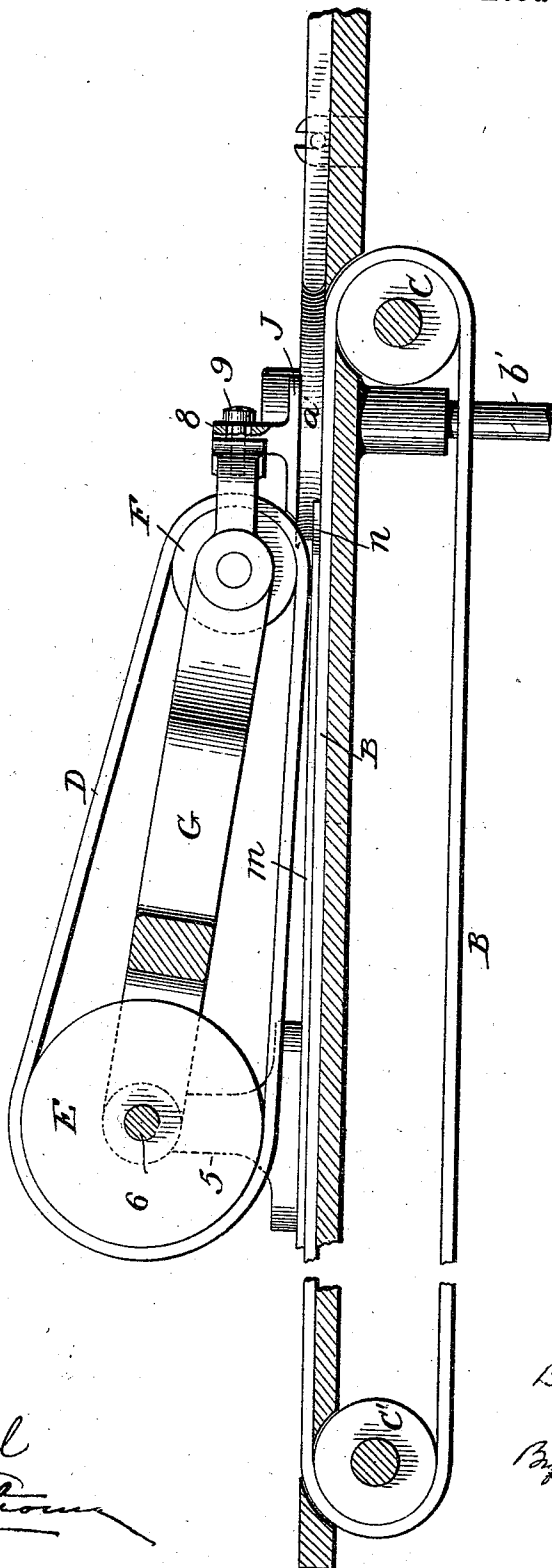
2 Sheets—Sheet 1.

B. BARON.
CIGARETTE MAKING MACHINE.

No. 555,418.

Patented Feb. 25, 1896.

Fig. 1.



Witnesses

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Fig. 2.

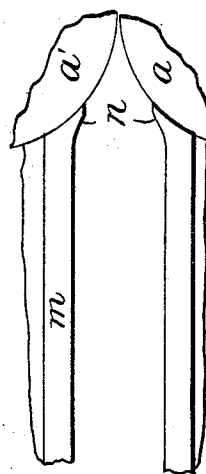
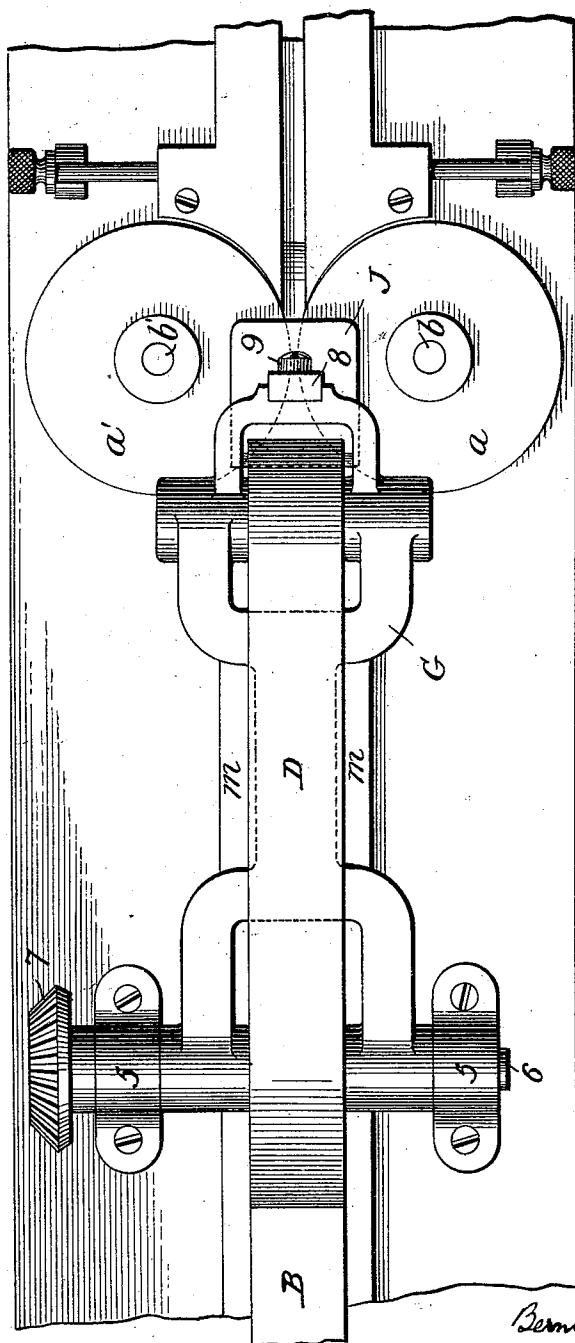


Fig. 3.

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UNITED STATES PATENT OFFICE.

BERNHARD BARON, OF NEW YORK, N. Y.

CIGARETTE-MAKING MACHINE.

SPECIFICATION forming part of Letters Patent No. 555,418, dated February 25, 1896.

Application filed October 31, 1895. Serial No. 567,508. (No model.)

To all whom it may concern:

Be it known that I, BERNHARD BARON, a citizen of the United States, residing in the city, county, and State of New York, have invented certain new and useful Improvements in Cigarette-Making Machines, of which the following is a specification.

My invention relates to that class of cigarette-making machines in which there are a traveling belt and two or more overhanging grooved wheels between which the tobacco is carried by the belt; and my invention consists in certain improvements hereinafter set forth, and illustrated in the accompanying drawings, in which—

Figure 1 is a sectional elevation of sufficient of a cigarette-making machine to illustrate my improvements; Fig. 2, a plan view; Fig. 3, a plan of the bed-plate adjacent to the molding-wheels.

With the exception of the details herein-after more especially alluded to the general character of the cigarette-making machine is intended to be and in actual practice is like that set forth in my application for Letters Patent, Serial No. 512,874, and I will therefore not describe any other details than those which are directly connected with my improvement. In some instances, however, it will be understood that the features which I describe may be used in connection with different kinds of devices for distributing tobacco onto a belt, or supplying the wrapper-strip and folding, pasting and cutting the same.

Upon a suitable frame or table are supported the bearings for two rolls C C', upon which moves a traveling belt B, the upper portion of which passes above the table between two guides m m. In other bearings also turn the vertical shafts b b', carrying at their upper ends the grooved wheels a a', beneath which passes the endless belt B, and in brackets 5 5 upon the table turns a shaft 6, upon which is a pulley E, and upon the shaft 6 swings a frame G, forked at the outer end and carrying a pulley F, and around both pulleys E F passes a continuous band D.

The shaft 6 is provided with a gear 7, which is driven in any suitable manner from the driving-shaft of the machine, as fully set forth in my before-named application for Letters

Patent, and tobacco is supplied to the upper face of the belt B, by which it is carried below the belt D, and from the latter to and between the grooved wheels a a', and thence to the strip of paper which is folded over the tobacco rod and pasted, dried and cut, as usual.

Heretofore in cigarette-making machines of a somewhat similar character as in that illustrated in my aforesaid application for Letters Patent it has been customary to prevent the tobacco from swelling upward between the molding-wheels a a' by carrying the upper feed-belt above said wheels and pressing it downward firmly thereon. While this is effective so far as the molding of the rod is concerned, it is attended with the disadvantages that it involves considerable friction in increasing the power necessary to drive the machine and results in wearing the belt. To overcome these objections I dispense with the use of an upper belt so far as it constitutes any part of the means for molding the rod, and I substitute therefor a plate J, overlying the wheels a a', at the point where the tobacco passes between the same and is molded, so that the tobacco carried to the wheels is compressed laterally between the same and vertically between the lower belt, B, and the plate J.

To prevent the tobacco from swelling and rising above the upper surfaces of the wheels a a' before passing beneath the plate J, I find it preferable to compress the tobacco vertically upon the belt B. This might be done by means of feed-rollers, or otherwise; but I prefer to make use of the feed-belt D and so support it that its under side or section shall be inclined to the belt B, so as to gradually compress the tobacco to a thickness, say, one-half the thickness of the wheels a a', so that before the tobacco can swell to a position above the upper surfaces of these wheels it will have passed beneath the plate J.

The plate J may be supported by any suitable means in proper position above the wheels a a'; but as it is necessary frequently to obtain access to the space wherein the tobacco is molded I prefer to connect the plate to the projecting end of the frame G, so that when the frame is swung upward with the belt D the plate J is also lifted, and when the plate is carried down to its normal position it is purposed to lock it by locking down the

frame G, as in my before-described application.

In order to properly adjust the height of the roller F, I connect the plate to the frame 5 by means of a slotted bracket 8 upon the plate, through which a screw 9 passes into the frame.

By loosening the screw the end of the frame may be raised or lowered, after which the 10 screw may be tightened to clamp the parts together.

The roller F may be set in any desired position; but I prefer to arrange it as shown, so as to compress the tobacco up to about the 15 point where it begins to enter between the wheels *a a'*, and in order to collect the tobacco upon the belt B to the center of the belt I prefer to extend the ribs *m m*, so as to form guides *n n*, which draw the line of tobacco 20 upon the belt from the sides toward the center.

The wheels *a a'* may be set at any suitable distance apart; but I prefer to form each of them with a groove corresponding very nearly to a half-circle and to set them with their 25 edges almost close together.

If desired, there may be two or more pairs of rollers *a a'*.

Without limiting myself to the precise construction and arrangement of parts shown, I 30 claim as my invention—

1. The combination in a cigarette-machine, of horizontal grooved wheels *a, a'*, arranged in line opposite each other to compress and carry the tobacco between them, a belt traveling beneath and in contact therewith, a stationary plate extending across and above the 35 wheels to cover the molding-space between

them, and a moving surface for pressing the tobacco as it approaches the stationary plate to direct it below the latter, substantially as 40 set forth.

2. The combination in a cigarette-machine of the traveling belt B, wheels *a, a'*, plate J and means for compressing tobacco upon the belt B, to bring the upper surface of the tobacco below the plane of the upper surfaces 45 of the wheels and below that of the plate to prevent it from swelling above the wheels, substantially as set forth.

3. The combination with the traveling belt 50 B, grooved wheels *a, a'*, of a feed-belt D, supported in position to bring its lower face below the plane of the upper faces of the wheels *a, a'* to compress and prevent the rising of the tobacco above the wheels, substantially 55 as set forth.

4. The combination with the belt B, wheels *a, a'*, and plate J, of a swinging frame having rollers E, F, thereon a belt D carried by rollers on said frame, and connections between 60 the frame and the plate, substantially as described.

5. The combination of the belt B, grooved wheels *a, a'*, swinging frame having rollers E, F, and belt D, and plate J, connected adjustably with the frame, substantially as 65 specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

BERNHARD BARON.

Witnesses:

CH. I. A. FAIRGRIEVE,
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